GOVERNOR'S OFFICE OF BUDGET AND PROGRAM PLANNING

Fiscal Note 2011 Biennium

Bill #	SB0234	**Title:**	Insurance coverage for autism
Primary Sponsor:	Gillan, Kim	**Status:**	As Amended in House Committee-Revised

☐ Significant Local Gov Impact ☐ Needs to be included in HB 2 ☐ Technical Concerns

☐ Included in the Executive Budget ☐ Significant Long-Term Impacts ☐ Dedicated Revenue Form Attached

FISCAL SUMMARY

	FY 2010 Difference	FY 2011 Difference	FY 2012 Difference	FY 2013 Difference
Expenditures:				
General Fund	$765,605	$832,623	$0	$0
State Special Revenue	$477,012	$519,880	$0	$0
Federal Special Revenue	$299,164	$326,049	$0	$0
Other	$10,729	$11,693	$0	$0
Group Benefits - State	$1,373,456	$1,492,767	$0	$0
Group Benefits - MUS	$689,547	$751,426	$0	$0
Revenue:				
General Fund	$0	$0	$0	$0
State Special Revenue	$0	$0	$0	$0
Federal Special Revenue	$0	$0	$0	$0
Other	$0	$0	$0	$0
Group Benefits - State	$1,373,456	$1,492,767	$0	$0
Group Benefits - MUS	$689,547	$751,426	$0	$0
Net Impact-General Fund Balance	($765,605)	($832,623)	$0	$0

Description of fiscal impact:

This bill provides for a mandated benefit covering autism spectrum disorders for children age 0-18. The bill sunsets as of plan year end 2011.

FISCAL ANALYSIS

Assumptions:

Department of Administration – Health Care and Benefits Division (HCBD)

General Assumptions

1. SB 234 as amended incorporates the following changes from the introduced version of the bill: (a) limits coverage under this mandate to children 18 years of age or younger (instead of 25); (b) establishes a benefit cap of $50,000 per year for children 0-8 and a $20,000 cap for children 9-18 years of age; (c)

permits use of medical necessity criteria for approval of benefits; (d) eliminates coverage for services provided to 'maintain' functioning of children with ASD, and eliminates nutritionist/registered dietitian covered services under this mandate; (e) further defines criteria for eligible providers of advanced behavioral analysis services; and (f) re-inserts 'autism' as a covered diagnosis under the seriously mentally ill parity mandate. The bill also contains a termination date of December 31, 2011.

2. The prevalence of autism spectrum disorders (ASD) is estimated to be 1 in 150 children. (source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Autism and Developmental Disorders Monitoring Network)
3. The state employee group benefit plan (state plan) covers 9,853 dependent children, ages 0-25.
4. Using the CDC prevalence rate, HCBD estimates there are 66 dependent children with autism spectrum disorder on the state plan (9,853/150 = 65.7); ages 0-25. Based on the distribution of children by age within the state plan, HCBD anticipates that 59 children would be between 0 and 18 years of age while 7 children would be 19-25 years of age. This prevalence rate is for FY2010.
5. According to the Autism Society of America, autism spectrum disorder is the fastest-growing developmental disability, with 10-17% annual growth. For purposes of this fiscal note, a 10% growth rate in prevalence is assumed between FY2010 and FY2011.
6. Only covered children 18 years of age or younger on the state employee benefit plan will be eligible for mandated benefits prescribed by this bill.
7. The benefits prescribed under this bill will be provided to individuals diagnosed with the following disorders as defined in the DSM-IV (Diagnostic and Statistical Manual of Mental Disorders); Autistic Disorder (code 299.00), Asperger's Disorder (code 299.80), and Pervasive Developmental Disorder, Not Otherwise Specified or PPD-NOS (code 299.80).
8. Other Pervasive Developmental Disorders are not covered; these are Rett's Disorder (code 299.80) and Childhood Disintegrative Disorder (code 299.10).
9. Covered services include medically necessary services prescribed by licensed physicians, psychiatric or psychological care including counseling, services rendered by speech-language pathologists, audiologists, occupational therapists, or physical therapists licensed in Montana.
10. Covered services include medication prescribed by a licensed physician.
11. Covered services also include habilitative or rehabilitative care that is prescribed, provided, or ordered by a licensed physician or licensed psychologist, including but not limited to professional, counseling, and guidance services and treatment programs that are medically necessary to develop, and restore, to the maximum extent practicable, the functioning of the covered child
12. Habilitative and rehabilitative care also includes interactive therapies derived from evidence-based research such as discrete trial training, pivotal response training, intensive intervention programs, and early intensive behavioral intervention; forms of applied behavioral analysis. According to the Center for Autism and Related Disorders, applied behavior analysis is defined as follows "…(ABA) is the process of systematically applying interventions based upon the principles of learning theory to improve socially significant behaviors to a meaningful degree (Baer, Wolf & Risley, 1968/1987; Sulzer-Azaroff & Mayer, 1991)." Dr. O. Ivar Lovaas developed one commonly referenced model of applied behavioral analysis (discrete trial training). The Lovaas model is an early intensive one-on-one behavioral treatment program consisting of 35-40 hours of therapy per week beginning when a child is two to eight years old. It calls for 6-8 hours of therapy per day for 5-7 days per week. The duration of the program is 2 or more years. (source: National Autistic Society; Lovaas Institute at UCLA). Less intensive models such as the DIR (development individual difference, relationship-based) or TEACCH models recommend 14-35 hours and 25 hours of intervention per week respectively.

Cost Estimation Methodology

13. SB 234 mandates insurance coverage for new services and provider categories in Montana.
14. In order to develop a projection of cost for a health care benefit, the utilization of the benefit (case mix) and the price per unit (unit cost) of service must be estimated. Utilization is measured by determining the type of services that will be used and weighting by the number of individuals (prevalence) accessing the services. Unit costs are applied to each type of service and the prevalence to determine overall cost.
15. Oliver Wyman Actuarial Consulting, Inc. (OWAC) was retained by the organization Autism Speaks (an autism advocacy group) to develop a cost model for purposes of pricing mandated insurance benefits for autism spectrum disorders (ASD). Certain assumptions from this model will be used in estimating the cost of ABA therapy under SB 234 as amended. The accuracy of assumptions contained in the OWAC model depend on the autism benefit having medical necessity criteria applied, not covering 'maintenance' of function for ASD individuals, application of age specific screening criteria for treatment modalities, and application of benefit caps. (Note: These assumptions were incorporated under SB 234 as amended.)
16. The specific services (case mix) that will be used depend on the diagnosis category each child falls into (i.e. autism, Asperger's, or PDD-NOS). Historical data for this benefit does not exist to develop actual estimates for Montana. For purposes of this fiscal note, the estimates will be split into two categories: ABA therapy and non-ABA therapy. For ABA therapy, the model developed by OWAC will be applied. For non-ABA therapy, separate case mix estimates are developed by category of ASD diagnosis.
17. The number of individuals (prevalence) utilizing various services also depends on the diagnosis category each child falls into. Again, prevalence estimates will be split into two categories: ABA therapy and non-ABA therapy. For ABA therapy, the OWAC model using the actual age distribution for children enrolled in the state employee group benefit plan will be used. For non-ABA therapy, estimates by category of ASD will be developed.
18. The unit costs will also be calculated differently based on therapy type. For ABA therapy, OWAC assumptions will be used. OWAC reviewed nationwide ABA staffing information and provider wage/overhead cost assumptions and attempted to model likely behavior and utilization. Based on this data, they developed an average cost per hour of ABA services based on Bureau of Labor Statistics health care wage data. This amount was determined to be $45.45 per hour for all ABA services. They noted that this amount may be highly variable since their model is based on Virginia legislation that calls for the majority of the mandated benefits to be for applied behavioral analysis. (Note: BLS health care wage data will understate any estimate of commercial reimbursement. BLS data is a composite of wage data derived from multiple payers such as Medicaid, Medicare, private pay, and commercial insurance as well as uncompensated care. Typically commercial insurance pays for health care services at rates well above those reimbursed by Medicaid or Medicare. Even so, using the $45.45 per hour rate, most children will reach the benefit caps. The state's actuary has calculated that an hourly rate of $34.79 for children aged 0-7, an hourly rate of $28.80 for children aged 8-12, and an hourly rate of $56.11 for children aged 13 and over will exhaust the available annual benefits under SB234.) For non-ABA services, HCBD has actual usual and customary fees (U&C) by provider type listed under assumption #20 below. These are not estimates and will be used in calculating unit costs for non-ABA therapy.

Unit Costs

19. For ABA therapy, this fiscal note uses the OWAC calculation of $45.45 per hour.
20. For non-ABA services, the following amounts are U&C fees for one-hour of service. These services have been converted from billing units to a common basis of cost for one-hour of charges:

Provider/Service Type	U&C Hourly Fees
Licensed physician/opthamology/optometry	$444
Psychiatric counseling (medical management)	$105
Psychotherapy/cognitive therapy	$147
Audiologist	$150
Occupational therapist	$180

Speech therapist	$160

Case Mix and Prevalence
ABA Services

21. For FY2010, of the 59 state employee group benefit plan children estimated to have ASD, 20 are assumed to fall into the autistic disorder diagnosis (33%), 10 are assumed to fall into the Asperger's disorder diagnosis (17%), and the remaining 29 are assumed to be diagnosed as PDD-NOS (50%). This is based on assumptions from OWAC.
22. The tables below contain the calculated cost of ABA services for state employee group benefit plan children based on assumptions contained in the OWAC actuarial model and applied during FY2010 and FY2011.

FY2010 ABA Services Costs

Age Band	State of MT Children with ABA Program [a]	Total Yearly ABA Hours / Child [b]	Hourly ABA Rate [c]	Total Un-Capped ABA Costs	Total Capped ABA Costs [d]	Projected ABA Costs
0-8 years	11	1509	$ 45.45	$ 754,425	$ 550,000	$ 550,000
9-12 years	6	781	$ 45.45	212,979	120,000	120,000
13-18 years	3	401	$ 45.45	54,676	60,000	54,676
			Subtotals	**$ 1,022,080**	**$ 730,000**	**$ 724,676**

ABA Cost per Child (by age band)		
	0-8 years	$ 50,000
	9-12 years	$ 20,000
	13-18 years	$ 18,225

FY2011 ABA Services Costs

Age Band	State of MT Children with ABA Program [a]	Total Yearly ABA Hours / Child [b]	Hourly ABA Rate [c]	Total Un-Capped ABA Costs	Total Capped ABA Costs [d]	Projected ABA Costs
0-8 years	12	1509	$ 49.54	$ 897,079	$ 600,000	$ 600,000
9-12 years	7	781	$ 49.54	270,838	140,000	140,000
13-18 years	3	401	$ 49.54	59,597	60,000	59,597
			Subtotals	**$ 1,227,515**	**$ 800,000**	**$ 799,597**

ABA Cost per Child (by age band)		
	0-8 years	$ 50,000
	9-12 years	$ 20,000
	13-18 years	$ 19,866

(a) Using the actual distribution of state employee group benefit children by age, for FY2010 the OWAC model estimates that 34% of eligible children (20 of 59 children from assumption #3 above) will utilize an ABA program. These children are assumed by OWAC to be those with autistic disorder and Asperger's diagnoses noted in assumption #20 above. This prevalence rate is based on: assuming that one-third of parents will not participate in an ABA program due to the level of commitment required by the family; assuming that once children reach school age they will begin to receive services through the school system (during the school day); and that as children age they will have less need for the services. For FY2011 the prevalence increases by 10% as noted in assumption 5. above.
(b) The number of hours of therapy are assumed to vary according to age: 1,509 (29 per week) for ages 0-8; 781 (15 hours per week) for ages 9-12; and 401 (7.7 hours per week) for ages 13-18.
(c) For FY2010, the hourly rate for ABA services developed by OWAC (see assumption 18. above) of $45.45 is used. For FY2011, a 9% trend for medical costs is applied for an hourly rate of $49.54.
(d) SB 234 caps the mandated benefit at $50,000 per year for children 0-8 years of age and $20,000 for children 9-18 years of age.

Conclusion: For ABA services, based on the estimates of prevalence and use for children on the state employee group benefit plan as calculated using the OWAC actuarial model, 99.3% (FY2010) to 99.9% (FY2011) of the capped benefits available under SB 234 would be expended.

Non-ABA Services:

23. OWAC had substantial difficulty in estimating the utilization of non-ABA services. They created a specific estimate for the State of Virginia "based upon studies of medical costs for ASD children and judgment regarding the increase in costs that could be expected due to the mandated benefits" based on specific historical claim experience for Virginia. When those assumptions were applied to Montana specific data, it was very inaccurate compared to known historical claims expenditures.
24. Abt Associates Inc. prepared a report for a mandated benefits review panel in Pennsylvania concerning autism mandates. They addressed issues related to service utilization and prevalence for non-ABA services. Abt identifies that speech and cognitive/behavioral therapy are used most often for younger ASD children, social skills therapies (cognitive therapy) and outpatient services such as speech therapy and occupational therapy are utilized by middle age range children, and psychotropic medication, outpatient care, residential care, and hospitalization for adolescents with autism. Abt also noted that children with autism typically utilize more services for rehabilitation than are generally covered under mental health parity benefits. This is important in noting that the autism mandate provides for use of rehabilitation therapies up to the autism benefit mandate cap and are not limited to the general medical visit or dollar limits under policies such as the state employee group benefit plan (i.e. $50,000 or $20,000 benefit caps vs. $10,000 or 30 visits for existing benefits). Abt noted that the length of psychiatric hospitalizations for children with autism (average 25 days) were five times the length of hospitalizations for children with other psychiatric disorders (average 5 days). Psychiatric hospitalization is more likely in older children who were diagnosed at a later age. Finally, OWAC estimated that children with ASDs under an autism mandate use approximately three times the non-inpatient services (excluding ABA) that are utilized under current benefit plans.
25. Asperger's syndrome is estimated to be the primary diagnosis for 10 ASD children on the state employee group benefit plan (see assumption #21 above). This developmental disorder is characterized by a lack of social skills; difficulty with social relationships; poor coordination and poor concentration; and a restricted range of interests, but normal intelligence and adequate language skills in the areas of vocabulary and grammar. (source: DSM-IV) Treatment plans for Asperger's focus on the following:
    - Social skills – speech therapy and cognitive behavioral therapy
    - Sensory management – audiological services, visual services, behavioral management (biofeedback and discreet trials/ABA)
    - Speech therapy – motor skills, voice/speech modulation, language skills
    - Occupational therapy – fine motor skills, sensory management
    - Medication – management for aggression/anxiety/depression/obsessive-compulsive tendencies

Below is a table containing the calculation of costs for non-ABA services rendered to Asperger's children. The Asperger's children who utilized ABA services are represented in assumption #22 and are not duplicated in the following table.

FY2010 and FY2011 Non-ABA Costs (Asperger's)

Asperger's Treatment Plan	Hours / wk	# Weeks	Hourly U&C Fee	Total Annual Cost	Children Utilizing Services	Total Projected Cost	Total Capped Cost
Speech therapy	5	52	$ 160	$ 41,600			
Cognitive therapy	1	26	$ 147	$ 3,822			
Audiological Svcs	1	4	$ 150	$ 600			

Visual Svcs	1	4	$	444	$ 1,776		
Occupational therapy	1	26	$	180	$ 4,680		
Medication management	1	2	$	105	$ 210		
Cost per Asperger's Treatment Plan					$ 52,688		
Children ages 0-8 utilizing non-ABA services ($50,000 cap)						1	$ 52,688	$ 50,000
Children ages 9-18 utilizing non-ABA services ($20,000 cap)						3	$ 158,064	$ 60,000
Total non-ABA costs for Asperger's diagnosis children								**$ 110,000**

Note: The OWAC model estimates 6 children with Asperger's will not access ABA services. Using OWAC estimates of 2/3 accessing treatment, HCBD estimates 4 of these 6 children will utilize a treatment plan such as the one listed above. One child will be age 0-8 and 3 children will be ages 9-18. These counts will be used for both FY2010 and FY2011 since a 10% increase in prevalence would not materially impact the total number of additional children in FY2011. The increase in medical trend of 9% is not shown for FY2011 since the projected costs exceed the capped costs under the benefit.

26. PDD-NOS is estimated to be the primary diagnosis for 29 ASD children on the state employee group benefit plan (see assumption #21 above). This developmental disorder is diagnosed when there is a severe and pervasive impairment in the development of social interaction or verbal and nonverbal communication skills, or when stereotyped behavior, interests, and activities are present (DSM-IV). Treatment plans for PDD-NOS vary widely depending on the symptoms observed, however treatment for language and social skills/dysfunction are common.
    - Social skills – speech therapy and cognitive behavioral therapy
    - Speech therapy – motor skills, voice/speech modulation, language skills

    Below is a table containing the calculation of costs for non-ABA services rendered to PDD-NOS children. These children are not represented in the ABA costs calculated in assumption #22.

FY2010 Non-ABA Costs (PDD-NOS)

PDD-NOS Treatment Plan	Hours / wk	# Weeks	Hourly U&C Fee	Total Annual Cost	Children Utilizing Services	Total Projected Cost	Total Capped Cost
Speech therapy	6	52	$ 160	$ 49,920			
Cognitive therapy	1	26	$ 147	$ 3,822			
Cost per PDD-NOS Treatment Plan				$ 53,742			
Children ages 0-8 utilizing non-ABA services ($50,000 cap)					3	$ 161,226	$ 150,000
Children ages 9-18 utilizing non-ABA services ($20,000 cap)					17	$ 913,614	$ 340,000
Total non-ABA costs for PDD-NOS diagnosis children							**$ 490,000**

Note: The OWAC model estimates that the children with PDD-NOS will not access ABA services. Using OWAC estimates of 2/3 accessing treatment, we estimate 20 of these 29 children will utilize a treatment plan such as the one listed above. Three children will be age 0-8 and 17 children will be ages 9-18.

FY2011 Non-ABA Costs (PDD-NOS)

PDD-NOS Treatment Plan	Hours / wk	# Weeks	Hourly U&C Fee *	Total Annual Cost	Children Utilizing Services	Total Projected Cost	Total Capped Cost
Speech therapy	6	52	$ 174	$ 54,288			
Cognitive therapy	1	26	$ 160	$ 4,160			
Cost per PDD-NOS Treatment Plan				$ 58,448			
Children ages 0-8 utilizing non-ABA services ($50,000 cap)					3	$ 175,344	$ 150,000
Children ages 9-18 utilizing non-ABA services ($20,000 cap)					19	$1,110,512	$ 380,000
Total non-ABA costs for PDD-NOS diagnosis children							**$ 530,000**

Note: The OWAC model estimates that the children with PDD-NOS will not access ABA services. Using OWAC estimates of 2/3 accessing treatment, we estimate 22 of these 33 children will utilize a treatment plan such as the one

listed above. Three children will be age 0-8 and 19 children will be ages 9-18. * An increase of 9% in medical trend is shown for 2011 fees.

27. Based on historical claims experience, increased prevalence, and information contained in the Abt report that identified psychiatric hospitalization as a cost driver among older children with ASD, HCBD estimates that the state employee group benefit plan will have one additional inpatient psychiatric hospitalization per year. During 2008, the average cost of an inpatient psychiatric hospitalization was $48,780. A 9% medical trend is applied for FY2011. No increase in prevalence is assumed from FY2010 to FY2011.
28. The total costs for the mandate are as follows:

Total Costs for Autism Mandate under SB234 as amended	FY 2010	FY 2011
ABA Services	$ 724,676	$ 799,597
Non-ABA Services (Asperger's)	110,000	$ 110,000
Non-ABA Services (PDD-NOS)	490,000	$ 530,000
Hospitalization	48,780	$ 53,170
Total Costs	**$ 1,373,456**	**$ 1,492,767**

29. The state employee group benefit plan is funded as follows: 42.79% general fund, 34.68% state special revenue fund, 21.75% federal funds, and .78% proprietary funding.
30. The benefit plan would require additional funding to cover this increased benefit expenditure in order to be actuarially sound. The funding could come either from additional appropriations (shown on the funding portion of this fiscal note) or through additional premiums assessed to state employee benefit plan members. Single employees are currently assessed premiums that are greater than their cost. The 9,124 contracts for employees or retirees who cover dependents would need to be increased. The average additional out-of-pocket dependent premium needed per month would be: $12.54 (FY2010) and $13.63 (FY2011).

Montana University System (MUS) – Group Insurance

General Assumptions

31. The same methodology and assumptions used to determine estimated costs that is described above for the Department of Administration have been applied for the University System. In order to avoid duplication of assumptions, only MUS specific information is shown in the following assumptions.
32. MUS employee group benefit plan covers 4,780 dependent children, ages 0-25.
33. Using the CDC prevalence rate, MUS estimates there are 32 dependent children with autism spectrum disorder on the state plan (4,780/150 = 31.9); ages 0-25. Based on the distribution of children by age within the MUS plan, we anticipate that 29 children would be between 0 and 18 years of age while 3 children would be 19-25 years of age. This prevalence rate is for FY2010.

ABA Services

34. For FY2010, of the 29 MUS employee group benefit plan children estimated to have ASD, 10 are assumed to fall into the autistic disorder diagnosis (33%), 5 are assumed to fall into the Asperger's disorder diagnosis (17%), and the remaining 14 are assumed to be diagnosed as PDD-NOS (50%). This is based on assumptions from OWAC.
35. The table below contains the calculated cost of ABA services for MUS employee group benefit plan children based on assumptions contained in the OWAC actuarial model and applied for FY2010 and FY2011.

FY2010 ABA Services Costs						
Age Band	**MUS Children with ABA Program [a]**	**Total Yearly ABA Hours / Child [b]**	**Hourly ABA Rate [c]**	**Total Un-Capped ABA Costs**	**Total Capped ABA Costs [d]**	**Projected ABA Costs**
0-8 years	5	1509	$ 45.45	$ 342,920	$ 250,000	$ 250,000
9-12 years	3	781	$ 45.45	106,489	60,000	60,000
13-18 years	1	401	$ 45.45	18,225	20,000	18,225
			Subtotals	**$467,635**	**$ 330,000**	**$ 328,225**
ABA Cost per Child (by age band)			0-8 years	$ 50,000		
			9-12 years	$ 20,000		
			13-18 years	$ 18,225		

FY2011 ABA Services Costs						
Age Band	**MUS Children with ABA Program [a]**	**Total Yearly ABA Hours / Child [b]**	**Hourly ABA Rate [c]**	**Total Un-Capped ABA Costs**	**Total Capped ABA Costs [d]**	**Projected ABA Costs**
0-8 years	6	1509	$ 49.54	$ 448,535	$ 300,000	$ 300,000
9-12 years	3	781	$ 49.54	116,072	60,000	60,000
13-18 years	1	401	$ 49.54	19,866	20,000	19,866
			Subtotals	**$ 584,473**	**$ 380,000**	**$ 379,866**
ABA Cost per Child (by age band)			0-8 years	$ 50,000		
			9-12 years	$ 20,000		
			13-18 years	$ 19,866		

Non-ABA Services:

36. Asperger's syndrome is estimated to be the primary diagnosis for 5 ASD children on the MUS employee group benefit plan.
37. Below is a table containing the calculation of costs for non-ABA services rendered to Asperger's children. The Asperger's children who utilized ABA services are represented in assumption 35. and are not duplicated in the following table.

FY2010 and FY2011 Non-ABA Costs (Asperger's)							
Asperger's Treatment Plan	**Hours / wk**	**# Weeks**	**Hourly U&C Fee**	**Total Annual Cost**	**Children Utilizing Services**	**Total Projected Cost**	**Total Capped Cost**
Speech therapy	5	52	$ 160	$ 41,600			
Cognitive therapy	1	26	$ 147	$ 3,822			
Audiological Svcs	1	4	$ 150	$ 600			
Visual Svcs	1	4	$ 444	$ 1,776			
Occupational therapy	1	26	$ 180	$ 4,680			
Medication management	1	2	$ 105	$ 210			
Cost per Asperger's Treatment Plan				$ 52,688			
Children ages 0-8 utilizing non-ABA services ($50,000 cap)					1	$ 52,688	$ 50,000
Children ages 9-18 utilizing non-ABA services ($20,000 cap)					2	$ 105,376	$ 40,000
Total non-ABA costs for Asperger's diagnosis children							**$ 90,000**

Note: The OWAC model estimates 4 children with Asperger's will not access ABA services. Using OWAC estimates of 2/3 accessing treatment, we estimate 3 of these 4 children will utilize a treatment plan such as the one listed above. One child will be age 0-8 and and 2 children will be ages 9-18. These counts will be used for both FY2010 and FY2011 since a 10% increase in prevalence would not materially impact the total number of additional

children in FY2011. The increase in medical trend of 9% is not shown for FY2011 since the projected costs exceed the capped costs under the benefit.

38. PDD-NOS is estimated to be the primary diagnosis for 14 ASD children on the MUS employee group benefit plan.
39. Below is a table containing the calculation of costs for non-ABA services rendered to PDD-NOS children. These children are not represented in the ABA costs calculated in assumption 35.

FY2010 Non-ABA Costs (PDD-NOS)							
PDD-NOS Treatment Plan	**Hours / wk**	**# Weeks**	**Hourly U&C Fee**	**Total Annual Cost**	**Children Utilizing Services**	**Total Projected Cost**	**Total Capped Cost**
Speech therapy	6	52	$ 160	$ 49,920			
Cognitive therapy	1	26	$ 147	$ 3,822			
Cost per PDD-NOS Treatment Plan				$ 53,742			
Children ages 0-8 utilizing non-ABA services ($50,000 cap)					2	$ 107,484	$ 100,000
Children ages 9-18 utilizing non-ABA services ($20,000 cap)					7	$ 376,194	$ 140,000
Total non-ABA costs for PDD-NOS diagnosis children							**$ 240,000**
Note: The OWAC model estimates that the children with PDD-NOS will not access ABA services. Using OWAC estimates of 2/3 accessing treatment, we estimate 9 of these 14 children will utilize a treatment plan such as the one Listed above. Two children will be age 0-8 and 7 children will be ages 9-18.							
FY2011 Non-ABA Costs (PDD-NOS)							
PDD-NOS Treatment Plan	**Hours / wk**	**# Weeks**	**Hourly U&C Fee***	**Total Annual Cost**	**Children Utilizing Services**	**Total Projected Cost**	**Total Capped Cost**
Speech therapy	6	52	$ 174	$ 54,288			
Cognitive therapy	1	26	$ 160	$ 4,160			
Cost per PDD-NOS Treatment Plan				$ 58,448			
Children ages 0-8 utilizing non-ABA services ($50,000 cap)					2	$ 116,896	$ 100,000
Children ages 9-18 utilizing non-ABA services ($20,000 cap)					8	$ 467,584	$ 160,000
Total non-ABA costs for PDD-NOS diagnosis children							**$ 260,000**
Note: The OWAC model estimates that the children with PDD-NOS will not access ABA services. Using OWAC estimates of 2/3 accessing treatment, we estimate 9 of these 14 children will utilize a treatment plan such as the one Listed above. Two children will be age 0-8 and 8 children will be ages 9-18. * An increase of 9% in medical trend is shown for 2011 fees.							

40. Based on historical claims experience, increased prevalence, and information contained in the Abt report that identified psychiatric hospitalization as a cost driver among older children with ASD, we estimate that the MUS employee group benefit plan will have one additional inpatient psychiatric hospitalization per year. During 2008 the average cost of an inpatient psychiatric hospitalization was $29,312.
41. For FY 2011-FY 2013, the combined medical and prescription drug trend inflation is projected to be 9%.
42. The total MUS costs for the mandate are as follows:

Total Costs for Autism Mandate under SB234 as amended	FY 2010	FY 2011
ABA Services	$ 328,225	$ 379,866
Non-ABA Services (Asperger's)	90,000	90,000
Non-ABA Services (PDD-NOS)	240,000	260,000
Hospitalization	29,312	31,950
Total Costs	**$ 687,537**	**$ 761,816**

43. The benefit plan would require additional funding to cover this increased benefit expenditure in order to be actuarially sound
44. 60% of these costs are associated with the Current Unrestricted Fund (CUF). The state's general fund would participate in 43% of these costs in the CUF.

Public Health and Human Services

45. The Department of Public Health and Human Services has determined that SB 234 would not have a fiscal impact upon the CHIP or medicaid program. Section 33-1-102(6) specifically leaves to the discretion of DPHHS determinations regarding the "amount, scope and duration of services for programs established under Title 53...". It further provides that DPHHS "may establish more restrictive eligibility requirements and fewer services than may be required by this title [33].

Department of Administration

	FY 2010 Difference	FY 2011 Difference	FY 2012 Difference	FY 2013 Difference
Fiscal Impact:				
Expenditures:				
Personal Serv. (Emp. Benefit	$1,373,456	$1,492,767	$0	$0
Benefits	$1,373,456	$1,492,767	$0	$0
TOTAL Expenditures	$2,746,912	$2,985,534	$0	$0
Funding of Expenditures:				
General Fund (01)	$587,702	$638,755	$0	$0
State Special Revenue (02)	$476,315	$517,692	$0	$0
Federal Special Revenue (03)	$298,727	$324,677	$0	$0
Other - Prop	$10,712	$11,643	$0	$0
Group Benefits	$1,373,456	$1,492,767	$0	$0
TOTAL Funding of Exp.	$2,746,912	$2,985,534	$0	$0
Revenues:				
General Fund (01)	$0	$0	$0	$0
State Special Revenue (02)	$0	$0	$0	$0
Federal Special Revenue (03)	$0	$0	$0	$0
Other-Prop	$0	$0	$0	$0
Group Benefits	$1,373,456	$1,492,767	$0	$0
TOTAL Revenues	$1,373,456	$1,492,767	$0	$0

MUS – Group Benefits

	FY 2010 Difference	FY 2011 Difference	FY 2012 Difference	FY 2013 Difference
Fiscal Impact:				
Expenditures:				
Benefits	$177,903	$193,868	$0	$0
Funding of Expenditures:				
MUS (3X)	$177,903	$193,868	$0	$0
Revenues:				
MUS (3X)	$177,903	$193,868	$0	$0

Office of Commissioner of Higher Education (conduit for state appropriations to MUS)

	FY 2010 Difference	FY 2011 Difference	FY 2012 Difference	FY 2013 Difference
Fiscal Impact:				
Expenditures:				
Transfers	$177,903	$193,868	$0	$0
Funding of Expenditures:				
General Fund (01)	$177,903	$193,868	$0	$0
Revenues:				
General Fund (01)	$0	$0	$0	$0
Net Impact to Fund Balance (Revenue minus Funding of Expenditures):				
General Fund (01)	($765,605)	($832,623)	$0	$0
State Special Revenue (02)	($477,012)	($519,880)	$0	$0
Federal Special Revenue (03)	($299,164)	($326,049)	$0	$0
Other	($10,729)	($11,693)	$0	$0
Group Benefits - State (06)	$0	$0	$0	$0
Group Benefits - MUS (3X)	$0	$0	$0	$0

Sponsor's Initials	*Date*	*Budget Director's Initials*	*Date*